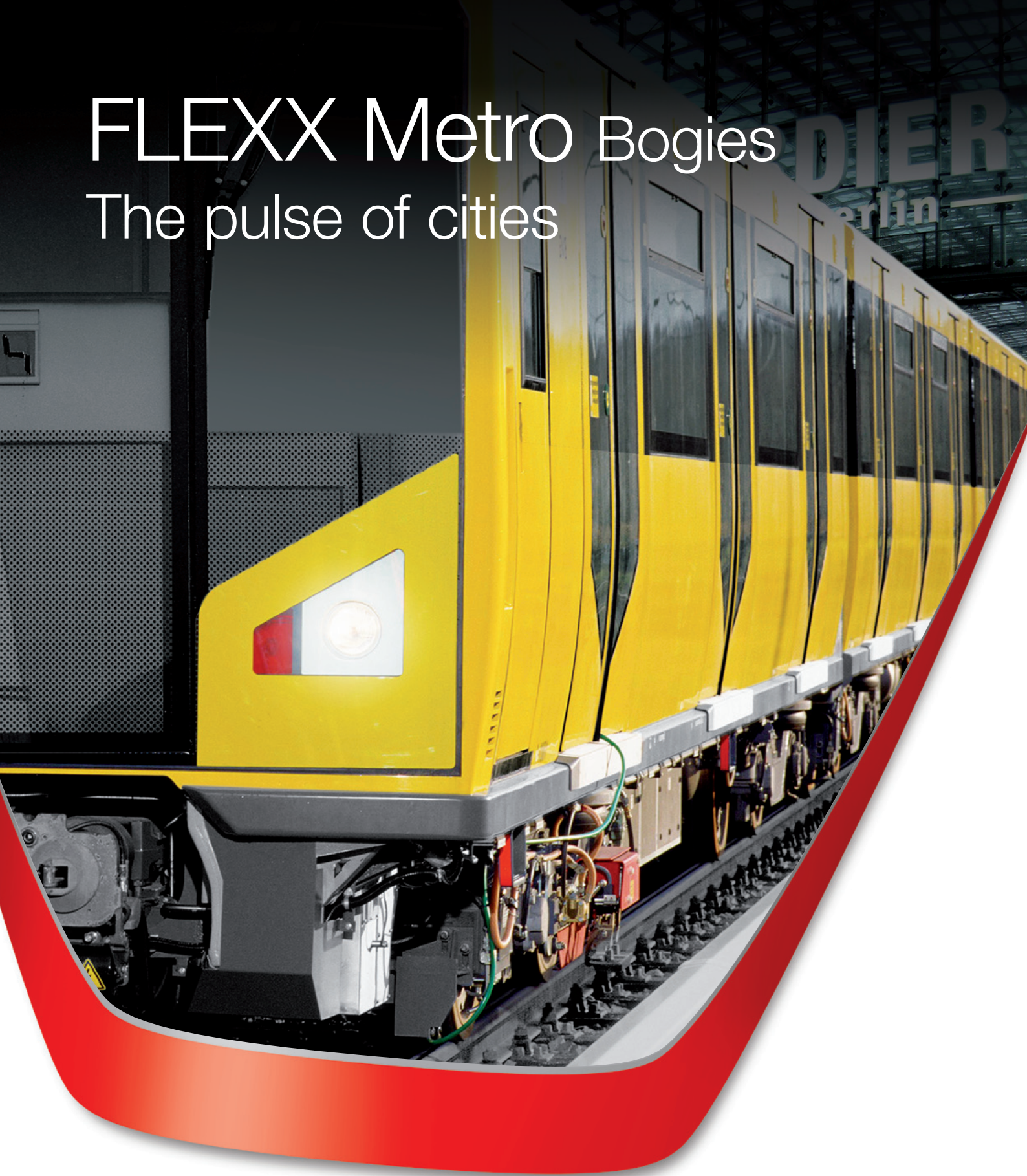


FLEXX Metro Bogies

The pulse of cities



Bogies

BOMBARDIER

◁ The pulse of cities ▷



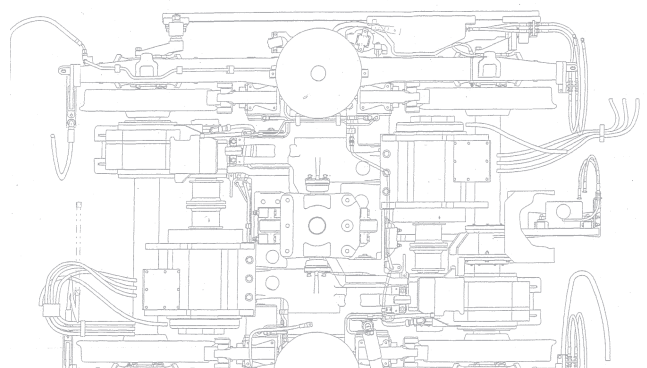
More than 20,000 *FLEXX* Metro Bogies are currently in service in over 20 countries worldwide.

Frequency and reliability are of utmost importance for high performance mass transit systems. The bogie is a highly critical component of metro trains in terms of safety, maintenance cost and passenger comfort. *FLEXX* Metro bogies meet these requirements by being extremely reliable, robust and straightforward in their design. *FLEXX* Metro light weight bogie concepts enable maximum vehicle capacity utilization with minimum energy consumption.

Railway infrastructure is often as varied as the cities it serves, therefore the *FLEXX* Metro portfolio reflects these distinctions through different configurations e.g. radial steering or inboard bearing designs. Safety is enhanced for demanding networks with special bogie frames incorporating articulated features.

The design of the *FLEXX* Metro bogie family is characterized by a maximum use of standard components. This guarantees competitive cost levels as well as proven design solutions.

All bogie components are designed and specified with a view to reducing whole bogie life cycle cost. Emphasis is placed on rapid and easy exchangeability of all components. Bogie maintenance is based on the principle of removable modules for operators' convenience and to maximise fleet availability. Furthermore, as part of the design process, the number of wearing parts is minimised.



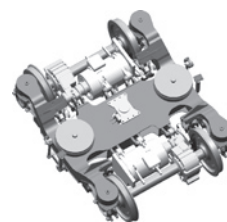
FLEXX Metro 1000, London



FLEXX Metro 2000, Bucharest



FLEXX Metro 3000, New Delhi



Technical Features	FLEXX Metro 1000	FLEXX Metro 2000	FLEXX Metro 3000
Gauge	1,435 mm	1,435 mm	1,435 - 1,673 mm
Wheel base	1,800 - 2,000 mm	2,200 - 2,500 mm	2,500 mm
Wheel diameter	720 - 860 mm	720 - 860 mm	720 - 860 mm
Maximum speed	80 -100 km/h	80 - 100 km/h	80 - 130 km/h
Mass (trailer)	3,5 - 4,5 t	4,0 - 5,5 t	5,5 - 6,5 t
Maximum axle load	9 - 12 t	12 - 16 t	16 -19 t
References	Adana, Berlin, Chicago, Izmir, London, Manila, Munich, New York, Nuremberg, Oslo, Philadelphia, Rotterdam, San Diego, Taipei ...	Ankara, Athens, Bucharest, Caracas, Guangzhou, Helsinki, Istanbul, Medellin, Prague, Stockholm, Toronto ...	Delhi, Hong Kong, Shanghai, Shenzhen, Guangzhou ...

The *FLEXX* Metro bogie portfolio comprises several innovative design concepts, including articulated frames. These are characterized by rubber jointed torsional flexible 'H' frames which guarantee optimum safety against derailment. Their robust design enables operations on networks with challenging track twist. Primary suspension with elastomeric components give a high level of steering performance and guarantee minimal noise emissions and vibrations, creating environmental benefits.

Due to infrastructure limitations the main differentiating criterion of metro system is the axle load. To allow for this specific requirement the *FLEXX* Metro bogies are grouped into families for light (1000), medium (2000) and heavy (3000) metros.



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Bombardier Transport

Place des Ateliers – BP1
59154 Crespin, France

Tel + 33 3 27 23 53 00
Fax + 33 3 27 35 16 24

Bombardier Transportation

Siegstraße 27
57250 Netphen, Germany

Tel + 49 271 702 0
Fax + 49 271 702 222

www.bombardier.com



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